

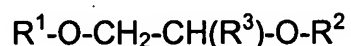
Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of the Claims:

1. **(Previously Presented)** A process for producing polymerisates by the use of conjugated dienes and vinylaromatic compounds by anionic polymerization in an inert reaction medium in the presence of

- at least one lithium-organic compound,
- at least one dialkyl ether of the formula



wherein

R^1 and R^2 are independently of one another alkyl residues having a different number of carbon atoms, which are selected from the group comprising methyl-, ethyl-, n-, and iso-propyl, and n-, iso-, sec-, and tert-butyl, and wherein the total carbon atoms in the two alkyl residues R^1 and R^2 are 5 to 7, and

R^3 represents hydrogen, a methyl- or an ethyl group, and

- at least one alkali-organic compound, wherein the alkali-organic compound is employed in quantities from greater 0.5 mol per mol of lithium in the lithium-organic compound and

- the alkali-organic compound is an alkali metal alcoholate of the formula M-OR, wherein R represents an alkyl group having 1 to 10 carbon atoms and M is sodium.
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2. **(Original)** A process according to claim 1, characterised in that prior to or during the polymerization reaction, aromatics having several vinyl groups or alkyl aromatics having several vinyl groups are added as cross-linking couplers.
 3. **(Previously Presented)** A process according to any one of claims 1 or 2, characterised in that at the end of polymerization the living chain ends are reacted with couplers, which are selected from the group of aromatics having several vinyl groups, alkyl aromatics having several vinyl groups, silicon tetrachloride, and tin tetrachloride.
 4. **(Previously Presented)** A process according to any one of claims 1 or 2, characterised in that R represents an alkyl group having 3 to 5 carbon atoms.
 5. **(Previously Presented)** A process according to any one of claims 1 or 2, characterised in that the alkali-organic compound is added to the polymerization mixture conjointly with the lithium-organic compound or the dialkylether in the form of a ready-for-use blend.

6. **(Previously Presented)** A process according to any one of claims 1 or 2, characterised in that the conjugated diene is 1,3-butadiene or 1,3-butadiene and isoprene.
7. **(Previously Presented)** A process according to any one of claims 1 or 2, characterised in that the inert reaction medium comprises cyclo-hexane and/or hexane.
8. **(Previously Presented)** A process according to any one of claims 1 or 2, characterised in that ethyl-ethyleneglycol-tert-butylether ($\text{CH}_3\text{CH}_2\text{OCH}_2\text{CH}_2\text{OC}(\text{CH}_3)_3$) is employed as a dialkylether.
9. **(Currently Amended)** A process according to any one of claims 1 or 2, characterised in that a monolithium compound having 1 to 12 carbon atoms, ~~particularly 4 to 6,~~ is used as a lithium-organic compound.
10. **(Currently Amended)** A process according to any one of claims 1 or 2, characterised in that the polymerization is carried out at 0 to 130 °C, ~~preferably 20 to 100 °C.~~
11. **(Previously Presented)** A process according to any one of claims 1 or 2, characterised in that vinylaromatic compounds having one or more vinyl

group(s) ($-\text{CH}=\text{CH}_2$) on the aromatic ring, have 8 to 20 carbon atoms, such that 30 to 60 wt.% of the monomeric units in the polymerisate are vinylaromatic compounds.

12. **(Currently Amended)** A process according to any one of claims 1 or 2, characterised in that the lithium-organic compound is used in quantities from 0.01 to 1, ~~preferably 0.01 to 0.2~~, parts per 100 parts by weight of monomer.
13. **(Currently Amended)** A process according to any one of claims 1 or 2, characterised in that the dialkylether is employed at a molecular ratio from 2 : 1 to 30 : 1, ~~preferably 2 : 1 to 15 : 1~~, based on the number of molecules of the catalyst (referring to the lithium atoms).
- 14-15. **(Cancelled)**
16. **(Previously Presented)** A process according to claim 1 wherein the vinyl aromatic compounds are styrene.
17. **(New)** A process according to any one of claims 1 or 2, characterised in that a monolithium compound having 4 to 6 carbon atoms is used as a lithium-organic compound.

18. **(New)** A process according to any one of claims 1 or 2, characterised in that the polymerization is carried out at 20 to 100 °C.
19. **(New)** A process according to any one of claims 1 or 2, characterised in that the lithium-organic compound is used in quantities from 0.01 to 0.2 parts per 100 parts by weight of monomer.
20. **(New)** A process according to any one of claims 1 or 2, characterised in that the dialkylether is employed at a molecular ratio from 2 : 1 to 15 : 1, based on the number of molecules of the catalyst (referring to the lithium atoms).